DOCUMENT RESUME

ED 479 244 IR 022 034

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TITLE	The Challenge of Teaching Educational Technology Courses Online.
PUB DATE	2003-04-00
NOTE	9p.; In: Teaching, Learning, & Technology: The Challenge Continues. Proceedings of the Annual Mid-South Instructional Technology Conference (8th, Murfreesboro, Tennessee, March 30-April 1, 2003); see IR 022 027.
AVAILABLE FROM	For full text: http://www.mtsu.edu/~itconf/proceed03/119.html/.
PUB TYPE	Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	*Course Organization ; *Educational Technology; Higher Education; *Instructional Development; *Online Courses; Questionnaires; Student Surveys; *Technology Uses in Education; *Web Based Instruction
IDENTIFIERS	*Course Development; Western Kentucky University

ABSTRACT

Based on the author's experiences teaching educational technology courses at Western Kentucky University, this paper presents time-saving ideas and survival tips for teaching online. The first section covers planning and organization, including development of a course CD that is mailed to all students at the beginning of the semester, online testing, demonstration, videos, the Student Online Learning Guide, student projects, and discussion boards. The second section addresses course management, including student feedback, folder organization, grades, e-mails, communication, color coding, and time savers and survival tips. A student feedback form is appended. (MES)

The Challenge of Teaching Educational Technology Courses Online

By: Marge Maxwell

Eighth Annual
Mid-South Instructional Technology Conference
Teaching, Learning, & Technology
The Challenge Continues
March 30-April 1, 2003

2003 Conference Proceedings

The Challenge of Teaching Educational Technology Courses Online

By: Marge Maxwell
Track 1 - Effective Technology Based Learning Environments
Interest: General :: Lecture/Presentation :: Level: All

Abstract

Not only is teaching technology ONLINE to teachers (or teacher candidates) who don't know much about technology a challenge, taking it a step farther, i.e., incorporating technology into teaching and learning is truly a unique challenge. Educational technology courses at Western Kentucky University incorporate common elements such as orientation activity, discussion boards, online exams, and student projects which include webpages, slideshows, databases, spreadsheets, clay animation, and newsletters. However, video computer demonstrations, graduate research slideshows, a CD library of Authentic Learning Units and an Information Portal to Internet Resources are unique elements to our program.

Proceeding

Not only is teaching technology ONLINE to teachers (or teacher candidates) who don't know much about technology a challenge, taking it a step further, i.e., incorporating technology into teaching and learning is truly a unique challenge. Educational technology courses at Western Kentucky University (WKU) incorporate several elements to enhance personal interactive learning in a cyber-class. Some of these vital elements include an orientation activity, use of discussion boards, online exams, open-ended student projects, weekly communication and feedback, video demonstrations, and more.

I have taught educational technology courses at WKU for the last nine semesters. All of our courses are now online. This paper presents some time-saving ideas and survival tips for teaching online.

Planning and Organization

Course CD. Prior planning and organization for an online educational technology course is probably the most critical element for success. Although WKU uses the online course management software, BlackBoard, a course CD is mailed to all students at the beginning of the semester. This format is used mainly because videos do not stream very well over our network. This CD contains a two main folders: Course Information (syllabus, assignments, Orientation Activity, Student Online Learning Guide, and APA Style helper) and Modules (PowerPoints, demonstration videos, tutorials, demonstration files, files to use in projects, sample projects, etc.) The syllabus clearly defines all course expectations, guidelines, and schedule. All assignments are in a separate file along with a scoring rubric for each project or activity.

In the Microcomputers in Education class, I divided the course into five modules. (See Table 1 for list of module contents.) Having previewed and used several educational technology texts, I found some elements of different texts that I like but not one book that covered all the information I wanted to include. Therefore, I create my own "textbook" PowerPoints that contain information, research, and links to Internet websites or other files on the CD. (See a sample page in Figure 1.)

Online testing. An online test evaluating student learning from each "textbook" PowerPoint is given for each module. A question pool of 50-70 questions (multiple choice, true/false, fill-in-the-blank, or short essay) has been created for each module. Tests are constructed to randomly select any 25 questions from the pool. Students are allowed to take the test as many times as they like during the week the test is posted. The purpose is to increase student interaction with the course information. Each time a student takes the test, s/he is presented different questions. It is extremely important to backup the test grades daily while a test is posted for the class. It is possible for the course management system to lose the grades.

Demonstration videos. The in-class software demonstration is the primary missing element in online educational technology classes. Using the software Camtasia, demonstration videos have been created and saved in self-extracting files. Camtasia allows the user to create and narrate desktop videos. Demonstrations are created as software tutorials, directions for assignment, numerous How To's, and more. All videos are now included on the course CD mailed to students at the beginning of the semester. The accompanying demonstration files are also included. For example, if a video demonstrated a certain database and question worksheet, these files are also included for students to practice with.

Student Online Learning Guide. A Student Online Learning Guide has been developed which outlines required resources, communication with instructor, successful online learning and computer tips, course participation requirements, what to do in case of emergencies, and characteristics and needs of adult online learners. Adult online learners take responsibility for their own learning. It is important to specify how you want students to communicate with the instructor, how students should submit assignments, and tips concerning online learning and technology usage.

Student projects. An Orientation Activity is the first course requirement. Students must log on to BlackBoard, locate the course information files, complete, sign, and mail the Orientation Activity to the instructor. The Orientation Activity is essentially a contract that requires students to check all boxes indicating they have printed and read all course information files (syllabus, assignments, online learning guide), they have all required software, they have edited their Student Homepage on BlackBoard, and they have sent the instructor an orientation email. The student signs a statement that all work will theirs alone and they will not use assignments from other courses for this course.

Several unique assignments are offered in WKU's educational technology courses. In the Top Ten assignment students research within the Internet and select any ten websites (name, URL, grade level, category, description) useful to educators. Students enter these sites into an online database, thereby creating a large Information Portal available to WKU students. This database now contains over 2000 websites.

All education courses at WKU require students to complete a Critical Performance Indicator, or project that can be included in a student's portfolio. The educational technology courses require an Authentic Thematic Technology Integration Unit in which students create lesson plans, a product (database, spreadsheet, slideshow, or some multimedia project), provide Internet resources, and worksheets. All units are compiled into a CD Library that is distributed to all students (with student permission) at the end of the semester.

All graduate students complete a research project in which a PowerPoint is created and presented either on campus or by video. The assignment is like writing a research paper but the body of the paper is placed in the notes of the slides while the slides contain a brief outline of the notes.

Discussion boards. Discussion boards are splendid interactive tools for an online course. Always include a Question and Answer (Q&A)) board where students can post questions about the course, problems with technology, location of resources, etc. Students help each other saving instructor time. However, there are two important points here. First, lay ground rules. Students may not make derogatory comments about

other students, the instructor, the course, or publicly air grievances. These types of comments should be addressed first to the person they concern. It if cannot be resolved, ask the instructor to assist. If it is about the instructor or course, I am approachable and always willing to listen. Second, the instructor needs to monitor the board to enforce these ground rules and to answer some questions. Publicly "pat students on the back" who correctly answer other students' questions.

Discussion boards can also be used as course content. A prompt can be posted to which students reply. I have graduate students research some topic or prompt and post their two to three page response with APA references. Another type of prompt may be to have students locate any lesson plan on the Internet that incorporates technology and post it on the discussion board. Each student must critique at least two of these lesson plans.

Course management

Student feedback. Course management during the semester can be time consuming. Maintaining a balance between adequate communication and feedback to online students, other university responsibilities, and your personal life is a challenge. Only organization and ongoing management can ensure success in all three areas. The greatest general complaint of online students is lack of or little communication and feedback from the instructor. I have created a Student Feedback Form (MS Word file, see sample in Figure 2) for each student. Throughout the semester I add grades and feedback comments and email it as an attached file to students. It has saved time and student complaints in the long run. It may take a little more time to add each student's grade to the form and email it. However, that takes less time than the hundreds of emails I used to get from students asking what their grade is, why they made a certain grade, or have they turned in a certain assignment.

Folder organization. Organization of folders is a key factor in saving time. Create an hierarchy of subfolders for each course. (See Figure 3 for a sample hierarchy). The highest level folder is a semester folder; next a folder for each course; a subfolder within each course for Student Feedback Forms, one for each assignment (each with its Graded subfolder), a course information folder, etc. I usually rename student projects with their last name and a word or two describing the project. For example: Smith.PrsidentsDB.doc. Don't forget to backup at least weekly.

All written assignments must be completed in Microsoft Word and sent as an email attachment. I save the assignment file in the correct assignment subfolder, open it, turn on the Track Changes feature, and make comments throughout the paper in red. I resave the file in a Graded Folder and send it to the student along with the Student Feedback Form.

Grades. I keep grades on an Excel spreadsheet rather than BlackBoard for several reasons. I can keep all the grades for all classes in one workbook, I have downloaded some student information from TopNet (WKU's local student database and registration tool) into the spreadsheet (including their email address), I can add comments to cells, and more. Each student's name is linked to their Student Feedback Form so that all I have to do is click their name to open the form and add grade and comments. Each student's email address is in the second column so that I just click on their address to send the feedback form and a graded assignment file. Type the email subject on the first one, copy it, and paste it for all the other email subjects.

Emails. Email maintenance is another significant facet of maintaining an online course. In teaching four online educational technology courses, I receive 20-80 student emails daily in addition to all the other university emails. Use your email software to filter emails by subject. For example, I require students to use a standard email subject format: LME448, Last Name, Topic. Outlook looks for the course number in the subject and places the email in the correct course folder. Before I even open the email, I know which student it is from and what the topic is. Emails that do not have the standard email subject are returned to the student requesting it be resubmitted with the correct subject. They are told at the beginning of the course this will happen. It only takes once for the student's email to be returned for the lesson to be learned.

NEVER delete student emails. They are evidence of communication or lack of communication. On

numerous occasions student have claimed that an assignment was sent. I can easily sort the email by sender to see all emails sent by the student. Set your software to send an automatic return acknowledgement for all emails when you open them. This saves on hundreds of student emails asking if you received an assignment. I even ask them not to email asking if I received it. Please wait for the return acknowledgement. Set your software to send yourself a copy of your replies to emails. Replies are saved in the same folder that is currently open. Encourage students to save all their emails and instructor replies in case one needs to be resubmitted.

When sending emails to students and you want to make similar comments, you can create macros of common statements to lessen the number of keystrokes. Create distribution lists for each class in case your course management system is down or you want to send an attached file to all students. Students appreciate personal comments. They need to know you care. There are many ways to personalize your communication: sympathize when a loved one is ill or dies or tell them you are thinking of them when they are sick. Send an ecard to all students once or twice a semester for Valentine's Day, Spring break, Christmas, etc. Student response is tremendous. They love it! Last but not least, when the semester is over, archive the email folder. A student may challenge a grade or have an incomplete. You may need evidence of communication.

Communication. Maintenance of the online course management system (Blackboard at WKU) is important. It is the one central area where students and the instructor "meet." Post at least two to three regular announcements per week. Let them know when you have graded and sent emails, when you will be out of town, some accomplishment of yours, your family, or another student, add a quote once in a while, reminders (especially of standard email subjects or due dates), changes in your program, available scholarships, explanation of some aspect of the course which several students are misunderstanding, etc. Be sure to make all announcements permanent so you and your students can review them any time during the semester.

Post instructor information before the semester begins so students can get to know you. As part of the Orientation Activity, I require students to post information to their Student Homepage within BlackBoard so we can get to know each other.

Color coding. Color-coding helps identify your courses. Blackboard allows the instructor to select colors for the course banner, buttons and headings. I use all blue for one course, all black for another course, and all red for the other course. I also place all printed course information, grade sheets, etc. in corresponding colored canvas portfolios. That makes it easy to pick up the correct folder for a class. If you are online working on a course and you are distracted by a phone call or visitor, you know exactly which class you are logged into because of the color.

Time savers and survival tips. Two other course management system features include course statistics and archiving a course. After the semester view and print all course statistics to use in reporting your yearly activities. I also view it about once a month to see which students are accessing the course most or who is not signing on at all. Archive the course when all is finished. You never know when you need the evidence. I have had to retrieve an archive once.

There are other time savers or survival tips such as learning keyboard commands. All software has several ways to invoke commands. For example, you can move your mouse to File, click it, move the mouse to Save, and click it. Another way to save is to click the disk icon in the format bar. However, the fastest way is to press CTRL-S on your keyboard. Invoking commands from the keyboard saves considerable time.

Other survival techniques include taking several stretch breaks from your computer, sit in an ergonomically designed chair, pay attention to lighting in your office, use an ergonomically designed keyboard and mouse. Don't work after a certain hour in the evening during the week and don't work on weekends and holidays and tell the class this at the beginning of the class. Of course, there may be exceptions (like when a test is posted) but don't make a habit of it. Students begin to expect to receive immediate responses from you if you don't make this clear. They will respect your privacy and your honesty. Some students have not even considered that an instructor answering email is actually work.

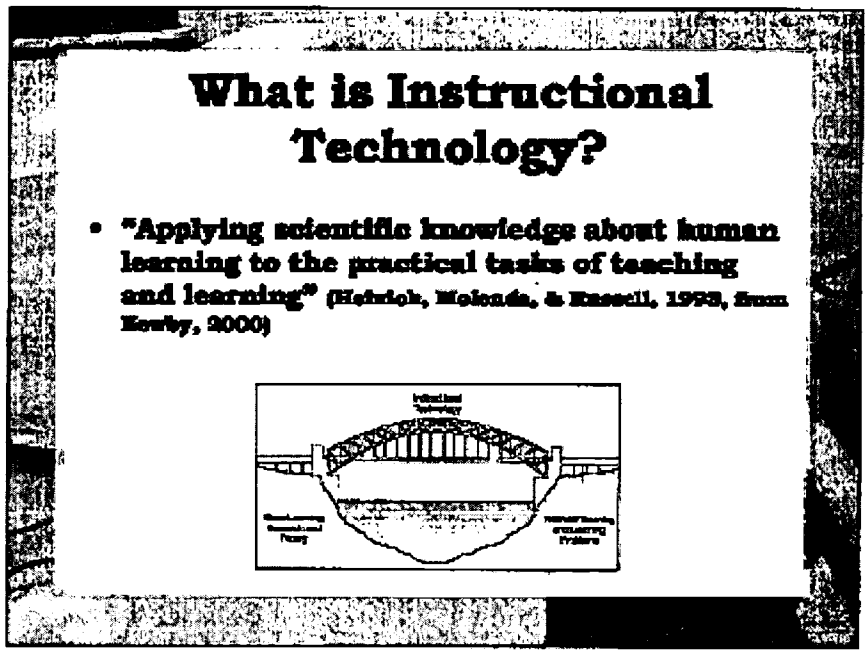
Conclusions

In conclusion there are key issues in teaching online educational technology courses that are important to students and instructors; however, they are not exactly the same. Students are more concerned with frequent communication with the instructor and feedback on assignments and grades. Clear expectations and communication at the beginning of the semester is critical. Students appreciate and even make comments thanking me for the feedback.

Instructors are concerned with the technical aspects and course maintenance. Organization of a course CD, emails, feedback, and BlackBoard have been critical to me in offering successful online educational technology courses. Students even make comments on their course evaluations about organization, instructor responses, and feedback.

Figure 1

Sample PowerPoint "Textbook" Page



What Exactly Is Instructional Technology?

Just as there is space technology, engineering technology, and medical technology that bridge basic research and practical problem areas in these specializations, there is also instructional technology. Generalizing from the previous definition, instructional technology has been defined as "applying scientific knowledge about human learning to the practical tasks of teaching and learning" (Heinich, Molenda, & Russell, 1993, p. 16). Specifically, instructional technology is the bridge between those who conduct research on human learning (e.g., psychologists, linguists) and those who are teaching and learning (see figure in slide 5). That is, instructional technology translates and applies basic research on human learning to produce instructional design principles and processes as well as hardware products that teachers and students can use to increase learning effectiveness.

In today's language, when most people use the word *technology*, they are referring to so-called "high-tech" equipment or hardware, such as computers, CD and DVD players, cellular telephones, even satellites. And indeed, these tangible items are part of our definition of instructional technology. As the figure shows, instructional technology is a means of connecting the teacher, the instructional experience, and learners in ways that enhance learning. The use of "high-tech" hardware is one way to make these connections; another is to use instructional media such as textbooks, overhead projectors and transparencies, and audiotapes. A third way is through the use of less tangible tools, such as instructional design principles and instructional strategies, methods, and techniques. These less tangible instructional technologies are sometimes referred to as process technologies.

(Newby, et.al., 2000, p.10)

Figure 2

Student Feedback Form

LME 448/G Student Feedback for Course Assignments
Spring 2003

Student's Name *Jane Doe*

This file will be sent to you with comments in red after each assignment is graded. Refer to scoring rubric for each assignment for more specifics. Review the following EXAMPLE:

Points Earned	Possible Points	Assignment	Assignment Component(s)	Comments	Points Summary
87	100	**Module 1 Project: PowerPoint**	Content	**3.7 – 13 slides, content good**	10.4 / 3=3.45 * 25 = 86.25
			References	**4 – 4 references, correct APA style**	
			Appearance	**2.7 – only 5 clip art, too much text per slide**	

Explanation of Example: Each component receives a score of between 1and 4 (see scoring rubrics for each assignment). These scores are totaled, then averaged, then multiplied by 25 (since the highest score is 4 and the possible points for this assignment are 100, hence, 4 * 25 = 100).

Points Earned	Possible Points	Assignment	Assignment Component(s)	Comments	Points Summary
	25	**Orientation Activity**	Picture on Student Homepage (3 points)		
			Email with all components to instructor (10 points)		
			Completed signed Orientation Activity (12 points)		
	50	**Participation**	Participation in Discussion boards, Completing and turning in assignments on time, Maintaining contact with the instructor, Maintaining positive professional attitude		
	400	**Module Tests**	Feedback and grades are available on CourseInfo.		
	100	**Module 1 Project: PowerPoint**	Content		
			References		
			Appearance		
	100	**Module 2 Project: Software Evaluation**			
	100	**Module 3 Project: Database Question Worksheet**			
	100	**Module 3 Project: Spreadsheet Question Worksheet**			
	100	**Module 4 Project: Top Ten Websites**			
	200	**Module 5 Project: Technology Integration Unit**	Lesson Plan		
			Product		
			Internet/Curriculum Integration		
			Supporting Activities		
	100	**Graduate Research PowerPoint Project**	Content		
			References		
			Appearance		
			Presentation		

Communication (emails/phone calls):

Table 1

LME 448/G Module Outline

Module	Text Information	Assignments	Course CD Contents

1. Educational technology	PowerPoint "textbook"	Online test Project: 10-slide PowerPoint on any educational technology topic	PowerPoint Tutorial Information Demonstration Video Sample Student Files
2. Using Instructional Software	PowerPoint "textbook"	Online test Project: three instructional software evaluations	PowerPoint Software Evaluation Form
3. Using Productivity Software and other Software Tools in Teaching and Learning	PowerPoint "textbook"	Online test Project: Create database and spreadsheet question worksheets	PowerPoint Tutorial Information Demonstration Videos Demonstration database and spreadsheet files Databases and spreadsheets for student projects
4. Integrating the Internet into Teaching and Learning	PowerPoint "textbook"	Online test Project: locating Internet websites useful to educators	PowerPoint Top Ten Database
5. Integrating Technology into the Curriculum	Discussion Board: Technology Uses in Different Subject Areas	Project: Authentic Thematic Technology Integration Unit	Video explaining project Sample Student Projects

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